Kentucky
CABINET FOR HEALTH SERVICES
DEPARTMENT FOR PUBLIC HEALTH
DIVISION OF EPIDEMIOLOGY

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Kentucky Lifestyles - 1995

To determine the behavioral risk factors for chronic diseases and injury, the Kentucky Department for Public Health, Division of Epidemiology, utilizes the Behavioral Risk Factor Surveillance System (BRFSS) to conduct a representative statewide telephone survey of Kentucky residents, age 18 and older. In 1995, 2,388 Kentuckians were surveyed to assess their knowledge, attitudes and health behaviors that contribute to unnecessary disability, disease and premature death in the state.

The BRFSS is coordinated by the Centers for Disease Control and Prevention and is used to track leading health risk behaviors in Kentucky and the United States. The following are highlights from the Kentucky 1995 Behavioral Risk Factor Survey.

SAFETY SEATBELT USE/NON-USE: 34.8% do not always wear a seatbelt when driving or riding in a car.

HYPERTENSION: 21.5% have been told their blood pressure was high by a doctor, nurse, or other health professional. 92.8% have had their blood pressure checked in the past two years by a doctor, nurse, or other health professional.

OVERWEIGHT: 33.0% are considered overweight (based on 120% of ideal weight).

SMOKING: 27.8% are current smokers. 39.3% of current smokers have quit smoking for one day or more in the past 12 months.

SMOKELESS TOBACCO: 4.8% currently use smokeless tobacco.

ALCOHOL CONSUMPTION: 34.5% have consumed at least 1 drink of any alcoholic beverage in the past month; 9.7% have consumed 5 or more drinks on an occasion at least once in the past month; and 2.7% have consumed 60 or more drinks in the past month.

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CHOLESTEROL: 31.0% have never had their cholesterol checked; 60.6% have had their cholesterol checked in the past 5 years; and 19.0% have been told their cholesterol was high.

DIABETES: 3.5% have been told by a doctor they had diabetes.

HEALTH CARE PLAN: 14.3% report having no health care plan, 24% of these respondents report never having health care and 25.7% have not had health care in the past 5 years.

FLU IMMUNIZATION: 52.1% of respondents over age 65 have had a flu shot in the past 12 months.

PNEUMONIA VACCINATION: 24.1% of respondents over age 65 have had a pneumonia vaccination .

PROCTOSCOPIC EXAM: 30.5% of respondents over age 50 have had a proctoscopic exam.

WOMEN'S HEALTH: 55.9% of women age 50 and over have had a mammogram and clinical breast exam in the past 2 years; 25.5% of women age 40 and over have never had a mammogram and clinical breast exam; and 26.7% of women age 50 and over have never had a mammogram and clinical breast exam.

CHILD SAFETY: Of children in the household age 5-15, 78.8% always use a seatbelt; 4.3% never use a seatbelt; and 95.5% of appropriate children use a car safety seat. 54.5% of children age 5-15 who ride a bicycle seldom or never wear a helmet.

Imported Malaria and Use of Malaria Chemoprophylaxis by Travelers -- Kentucky, Maryland, and United States, 1993-1994

The following article is reprinted from *MMWR*, November 1, 1996, Vol. 45, No. 43

Malaria surveillance has been maintained in the United States since indigenous transmission was interrupted in the late 1940s. Most reported cases in this country are acquired during international travel or occur among persons who resided in malaria-endemic countries. During 1993-1994, the number of reported cases increased in Kentucky and Maryland. This report summarizes the investigations of these cases and compares findings with national data from 1993, which indicate many travelers who acquired malaria infection failed to take appropriate chemoprophylaxis.

Kentucky. During 1993-1994, a total of 16 confirmed cases of malaria (shown in Table 1) were reported to the Kentucky Department for Public Health, twice the total reported during 1991-1992. Case report forms were reviewed, and additional clinical information was obtained through review of hospital medical records and by contacting patients, reporting physicians, or military health officers. Most infections were acquired in Africa (seven {44%}), followed by Central America (six {38%}) and Asia (three {19%}). Three of the six U.S. civilians with malaria reported using chemoprophylaxis during exposure; none of these patients had used a drug recommended by CDC. Of the three civilians who did not use prophylaxis, two were unaware of the need, and one was aware but did not use it.

Maryland. In Maryland, 83 cases of malaria were reported in 1994, a 46% increase over the 57 cases reported in 1993. CDC Malaria Case Surveillance Report forms, Maryland Confidential Morbidity Report forms, and laboratory reports were reviewed; local health departments were contacted for missing data. Of the 75 cases with known country of travel, 53 (64% of all cases) were acquired in Africa. Of the 37 U.S. civilians for whom data were available, 13 (35%) reported use of chemoprophylaxis during the period of probable exposure (shown in Table 1). Of nine U.S. civilians for whom information about chemoprophylaxis was available, two (22%) had used a drug recommended by CDC. The adequacy of their dosing regimens was unknown.

United States. In 1993, state and territorial health departments reported 1275 cases of malaria to CDC (CDC, unpublished data, 1993), a 40% increase over the 910 cases reported in 1992 (1). The increase reflected cases among military personnel returning from Somalia and improved reporting of cases identified in New York City. Most malaria cases were acquired in Africa (58%), followed by Asia (20%) and Central America and the Caribbean (11%) (Table 1). Eight deaths were associated with infection with *Plasmodium falciparum*. Of the 482 U.S. civilians with imported malaria for whom information about use of chemoprophylaxis was available, 253 (52%) used chemoprophylaxis during the period of probable exposure. Of the 225 persons for whom information about drugs used were available, 109 (48%) used recommended drugs; 57 (52%) of these patients had infections consistent with relapse of *P. vivax* or *P. ovale* infection. Of the 34 nonrelapse-associated cases for which data about dosing regimen were available, 11 (32%) used recommended doses of mefloquine, and 23 (68%) were noncompliant. Five of the 11 persons who were compliant had *P. falciparum* infection. Serum levels of mefloquine were inadequate to provide protection from blood stage infection in four of these five cases for whom levels were measured (2). The remaining six persons who were compliant were diagnosed with *P. malariae* infection 1-2 months after completing their course of chemoprophylaxis. Overall, 84% of U.S. civilians with malaria reported that they had not used or had incorrectly used chemoprophylaxis.

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Editorial Note: Malaria is preventable through effective chemoprophylactic regimens that are safe and well tolerated (3). The drug of choice for travel to most areas with chloroquine-resistant *P. falciparum* is mefloquine. In a previous survey of 139,000 European travelers to East Africa, the frequencies of adverse reactions to mefloquine and chloroquine were similar and included reports of dizziness in 7.6% and 5.3% of mefloquine and chloroquine users, respectively, and serious neuropsychiatric reactions (i.e., fatal; life-threatening, or

disabling reactions or reactions that resulted in or prolonged a patient's stay in a hospital or lead to malignancy or congenital anomaly) in 0.009% and 0.007%, respectively (3).

The objectives of the national malaria surveillance system are to identify episodes of malaria transmission in the United States and to monitor trends in imported cases. Information collected about trends in imported cases of malaria and on the effectiveness of chemoprophylactic measures used by travelers assists in guiding prevention recommendations (4). The reasons for the increase in reported cases in Kentucky and Maryland are unknown but may include increased travel to malaria-endemic areas. In these two states and nationally, most persons who contracted malaria during travel to a malaria-endemic area failed to use appropriate chemoprophylaxis. Of those who did use chemoprophylaxis, fewer than half used an optimal drug or dosing regimen for preventing malaria. Similarly low rates of compliance with chemoprophylactic regimens (40%-50%) have been documented in surveys of travelers (5-7).

Failure of prophylaxis may occur for at least four reasons. First, travelers may not seek or follow advice or may receive inaccurate advice regarding antimalarial medication. Second, travelers may forget to use prophylaxis, may not completely understand chemoprophylactic advice, or may be advised by peers not to use chemoprophylaxis (7). Third, persons who visit friends or relatives living in areas with endemic malaria often are less likely than other tourists to obtain pretravel advice (8) or to use chemoprophylaxis (5,8) and are more likely to have malarial illnesses (9). Fourth, many physicians infrequently provide pretravel advice to patients and may not be aware of the current recommendations.

Prevention of malaria requires educating travelers about the health risks associated with travel and the need to obtain pretravel medical advice, and educating health-care providers regarding optimal and accurate malaria prevention recommendations. Providing written instructions to travelers may decrease noncompliance caused by misunderstanding of advice. Because travelers who visit friends or relatives may seek pretravel medical advice through the health-care system less frequently than other tourists, alternative means (e.g., through the travel industry) may be needed to advise these persons. The need for chemoprophylaxis and the choice of antimalarial

TABLE 1. Number and percentage of reported cases of malaria, by selected characteristics -- Kentucky *, 1993-1994, Maryland †, 1994, and United States §, 1993

Characteristic	1993-1994 Kentucky (n=16) No.	(%)	1994 Maryland (n=83) No.	(%)	1993 United States (n=1275) No.	(%)
U.S. civilian	6	(37)	3	(46)	519	(41)
Proportion of cases acquired by travel	16	(100)	83	(100)	1264	(99)
Species						
Plasmodium vivax	7	(44)	18	(22)	663	(52)
P. falciparum	5	(31)	41	(49)	457	(36)
P. ovale	0	--	1	(1)	41	(3)
P. malariae	1	(6)	5	(6)	53	(4)
Mixed	2	(13)	0	--	2	(<1)
Unknown	1	(6)	18	(22)	59	(5)
Region of acquisition						
Africa	7	(44)	53	(64)	745	(58)
Asia	3	(19)	13	(16)	259	(20)
Central America	6	(38)	7	(8)	146	(11)
Other/Unknown	0		10	(12)	125	(10)
Proportion of U.S. civilians who used chemoprophylaxis	3	(50)	13	(35)	253	(52)
Correct drug ¶	0	(33)	2	(22)	109	(48)
Correct dose **	--		Unknown		11	(32)

§ 1994 population 3,828,000.
† 1994 population 5,000,000.
§ 1994 population 261,523,872.
¶ U.S. Civilians for whom information about use of chemoprophylaxis was available (one of three in Kentucky, two of nine in Maryland, and 109 of 225 in the United States).

medication depend on the travel destination (e.g., country of travel or urban versus rural setting); therefore, health-care providers need to elicit a complete travel itinerary before prescribing chemoprophylaxis. In addition, because optimal chemoprophylactic regimens are not 100% effective, patients and physicians need to be aware that prompt diagnostic evaluation should be conducted if symptoms of malaria occur after travel.

Copies of a travelers' information brochure on malaria prevention measures, "Preventing Malaria in Travelers, A Guide for Travelers to Malarious Areas," is available for travel companies and health-care providers and can be obtained by sending a facsimile request to (770) 488-7761. Detailed recommendations for preventing malaria are available 24 hours a day by telephone ({404} 332-4555) or facsimile ({404} 332-4565) from CDC's Malaria Hotline and are published annually in Health Information for International Travel (10), available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9235; telephone (202) 512-1800.

Health-care workers are encouraged to consider malaria in the differential diagnosis of fever in persons recently returning from international travel and to report cases to state or local health departments. Consultation on malaria treatment recommendations are available from CDC's Division of Parasitic Diseases, National Center for Infectious Diseases, telephone (770) 488-7760, from 8:00 a.m. to 4:30 p.m. eastern time Monday through Friday and (404) 639-2888 at other hours and on weekends. Information is also available from the Communicable Disease Program by calling 502-564-4478.

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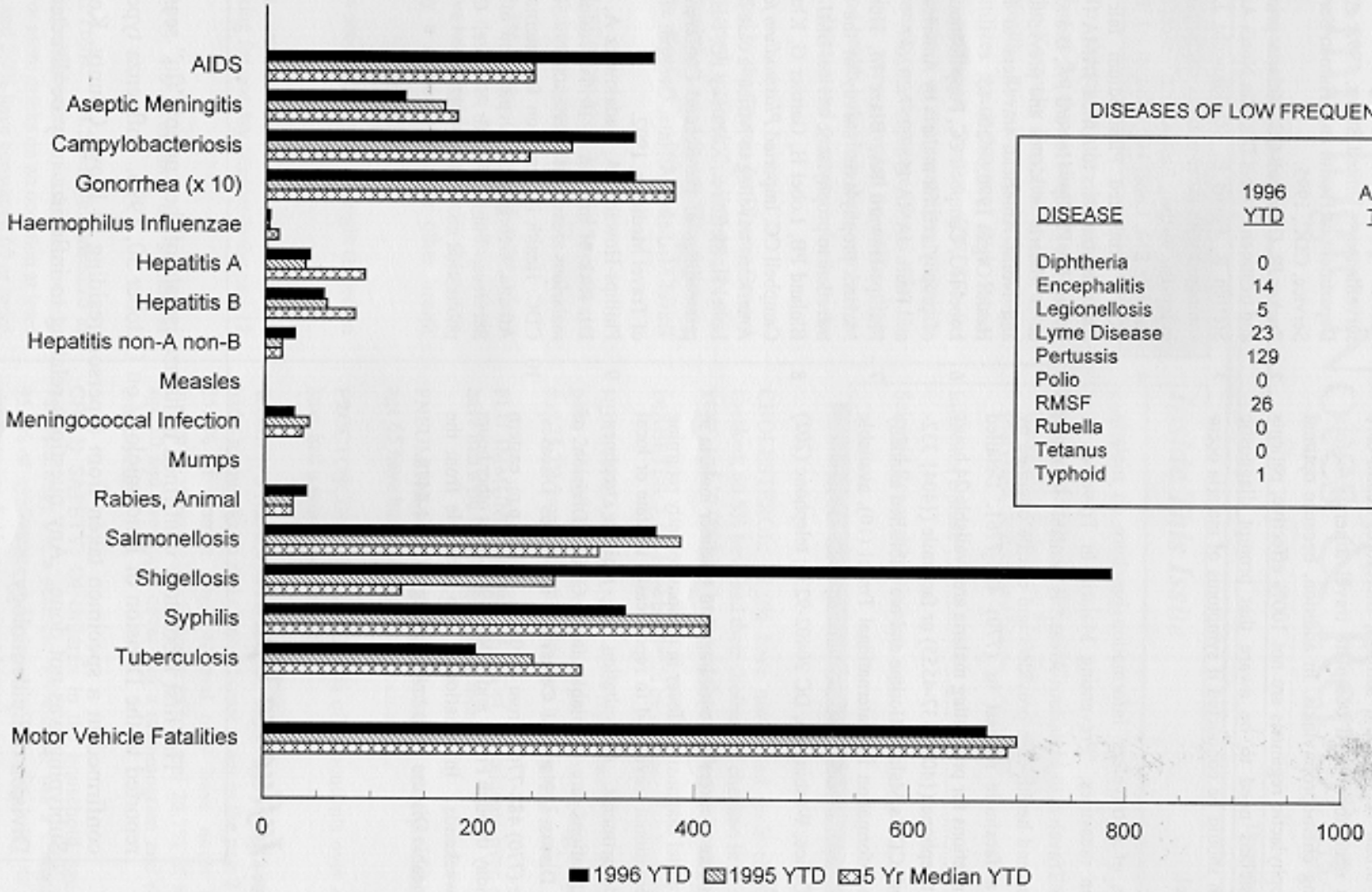
Influenza Update . . .

The first laboratory confirmed influenza isolate of the current "flu" season was reported to the Division of Epidemiology on October 30, 1996. Influenza type B was confirmed in a specimen taken from a person residing in Floyd County, Kentucky. Subtyping was not done. Any questions relating to influenza may be directed to the Division of Epidemiology.

CASES OF SELECTED REPORTABLE DISEASES IN KENTUCKY, YEAR TO DATE (YTD) THROUGH OCTOBER 1996



DISEASES OF LOW FREQUENCY

DISEASE	1996 YTD	1995 ANNUAL TOTAL
Diphtheria	0	0
Encephalitis	14	25
Legionellosis	5	10
Lyme Disease	23	16
Pertussis	129	27
Polio	0	0
RMSF	26	16
Rubella	0	0
Tetanus	0	0
Typhoid	1	0

Disease numbers reflect only those cases which meet the surveillance definition.

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Kentucky Lifestyles - 1995 (continued from page 1)

FIREARM SAFETY: 47.8% of the respondents have loaded or unloaded firearms in the home or vehicle. Of those, 7.8% have loaded firearms in their vehicle and 29.7% have loaded firearms in their home. 54.3% feel safer because there are firearms in the home or vehicle. Excluding firearms carried because of work, 8.3% have carried a loaded firearm on their person outside the home in the past 30 days for protection.

HIV\AIDS: 91.0% of respondents age 18-64 reported their chances of getting infected with HIV were "low" or "none". 30.7% of respondents age 18-64 have had a blood test for HIV.

This information is made available to Kentucky's public health agencies and health care providers to serve as a resource as we strive to shape the health of all Kentuckians. The importance of these data is especially reflected when reviewing causes of death in 1994 from the Annual Vital Statistics Report. Of the 36,919 deaths in Kentucky in 1994, 64% were due to heart disease, malignant neoplasms and cerebrovascular disease; all chronic diseases primarily caused by health risk behaviors. Although individuals are ultimately responsible for their health behaviors, their choices are influenced by social, economic and cultural factors. The role of Kentucky's health care providers should be to strive to identify areas of concern and encourage the creation of healthy environments through the development of both policy and programs. With a commitment from all health care leaders throughout the Commonwealth, Kentuckians can improve their health status by developing a healthier lifestyle and routine preventive care visits to their physicians.

For more indepth information relating to these risk factor data, we encourage you to contact the Division of Epidemiology, Surveillance and Investigation Branch at 502-564-3418. A future issue of *Kentucky Epidemiologic Notes & Reports* will compare the Kentucky data with the other States and the U.S. as a whole.